PTO/SB/21 (08-03)

ype a plus sign (+) inside this box --> +

Approved for use through 8/30/2003. OMB 0651-0031 U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

ider the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

TRANSMITTAL FORM  (to be used for all correspondence after initial filing)			Appl	ication Number	10/6	13,516		
			Filin	g Date	July	3, 2003		
			First	First Named Inventor		HASTINGS, Reed		
			Group Art Unit		2171	2171		
			Exam	niner Name	Unas	ssigned		
Total Number of Pages i	in This Submission	n	Attor	ney Docket Number	RATI	RATLP001H		
		ENCLO	SURES	(check all that apply	y)			
Fee Transmittal For	☐ Drawing(s)			After Allowance Communication to Group				
Fee Attached		Licensii	sing-related Papers		☐ Ar	Appeal Communication to Board of Appeals and Interferences		
Amendment / Reply	•	Petition		,	□ Ar	Appeal Communication to Group (Appeal Notice, Brief, Reply Brief)		
After Final		Provision	onal App	vert to a plication	Pr	Proprietary Information		
Affidavits/declar	ation(s)	Power of Attorney, Revocation Change of Correspondence Address			St	Status Letter		
		Terminal Disclaimer			⊠ Re	eturn Postcard	i	
Extension of Time R	Request for Refund		Official	ther Enclosure(s) (please entify below):				
Express Abandonme	CD, Number of CD(s)							
Information Disclosure Statement Remark			The Commissioner is authorized to charge any additional fees to Deposit Account 50-1652.			$\neg$		
Certified Copy of Prid								
Response to Missing Incomplete Application								
Response to Mis- under 37 CFR 1.								
	SIGNAT	URE OF A	PPLICA	ANT, ATTORNEY,	OR AGEN	T	$\neg$	
	ITTER, LANG	& KAPLAN	I LLP				$\neg$	
Signature	lichael J. Ritte	1/2-1	† †	Reg. No. 36,653	<del></del>	···	$\dashv$	
Date February 2, 2004							$\exists$	
		CERI	IFICA	TE OF MAILING			=	
hereby certify that this corresponded to: Comm	pondence is being d issioner for Patents,	eposited with th	e United	States Postal Service wi	th sufficient p the date show	postage as first class mail in an wn: February 2, 2004	$\rightarrow$	
Typed or printed name	Kimberly Melvi	<del></del> າ						
Signature	hi	m			Date	February 2, 2004	-	

Burden Hour Statement: This form is estimated to take 0.2 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be send to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

hereby certify that this correspondence is being deposited with United States Postal Service as First Class Mail in an envelope addrassed to: Commissioner for Patents, P.O. Box 1450, andria, VA 22313-1450, on February 2, 2004.

Attorney Docket No. RATLP001H **PATENT** 

Group: 2171

Date: February 2, 2004

Kimberly Melvin

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

HASTINGS, Reed

Application No.: 10/613,516

Filed: July 3, 2003

For: METHOD AND APPARATUS FOR MODIFYING

RELOCATABLE OBJECT CODE FILES AND MONITORING

**PROGRAMS** 

## INFORMATION DISCLOSURE STATEMENT UNDER 37 CFR §§1.56 AND 1.97(c)

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Dear Sir:

The references listed in the attached PTO Form 1449 may be material to examination of the above-identified patent application. Applicants submit the list of these references in compliance with their duty of disclosure pursuant to 37 CFR §§1.56 and 1.97. The Examiner is requested to make these references of official record in this application. The above-identified application is a Continuation of prior application U.S. Patent Application No. 09/434,203. This prior application is being relied upon for an earlier filing date under 35 U.S.C. § 120. Because the listed references were either cited by the PTO, or submitted to the PTO in the prior application, under 37 CFR § 1.98(d) Applicants submit that copies need not be provided.

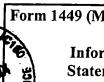
This Information Disclosure Statement is not to be construed as a representation that a search has been made, that additional information material to the examination of this application does not exist, or that these references indeed constitute prior art.

This Information Disclosure Statement is believed to be filed before the mailing date of a first Office Action on the merits. Accordingly, it is believed that no fees are due in connection with the filing of this Information Disclosure Statement. However, if it is determined that any fees are due, the Commissioner is hereby authorized to charge such fees to Deposit Account 50-1652 (Order No. RATLP001H).

Respectfully submitted.

Reg. No. 36,65/3

RITTER, LANG & KAPLAN LLP 12930 Saratoga Ave., Suite D1 Saratoga, CA 95070 (408) 446-8690



Form 1449 (Modified)

**Information Disclosure** Statement By Applicant

(Use Several Sheets if Necessary)

Atty Docket No. Application No.:

RATLP001H 10/613,516

Inventor

**REED HASTINGS** 

Group Filing Date Mailing Date

Unassigned July 3, 2003 February 2, 2004

## U.S. Patent Documents

Examiner	1					Sub-	Filing
Initial	No.	Patent No.	Date	Patentee	Class	class	Date
	1	3,815,103	06/1974	Holtley et al.	340	172.5	
	2	4,104,718	08/1978	Poublan et al.	364	200	
	3	4,394,731	07/1983	Flusche et al.	395	472	
	4	4,533,997	08/1985	Furgerson	385	425	
	5	4,802,165	01/1989	Ream	371	19	
	6	4,811,347	03/1989	Bolt	371	51	
	7	4,815,025	03/1989	Ossfeldt et al.	364	900	
	8	4,903,194	02/1990	Houdek et al.	364	200	
	9	4,937,736	06/1990	Chang et al.	364	200	
	10	4,953,084	08/1990	Meloy et al.	364	200	
	11	5,025,366	06/1991	Baror	364	200	
	12	5,029,078	07/1991	Iwai	364	200	
	13	5,075,842	12/1991	Lai	395	425	
	14	5,115,499	05/1992	Stiffler et al.	395	425	
	15	5,132,972	07/1992	Hansen	371	19	
	16	5,175,837	12/1982	Arnold et al.	395	425	
	17	5,193,180	03/1993	Hastings	395	375	
	18	5,230,070	07/1993	Liu	395	425	
	19	5,335,344	08/1994	Hastings	395	375	
	20	5,404,499	04/1995	Nichols	364	266	1
	21	5,412,788	05/1995	Collins et al.	395	425	
	22	5,438,670	08/1995	Baror et al.	395	403	
	23	5,528,753	06/1996	Fortin	395	183.11	

Foreign Patent or Published Foreign Patent Application

Examiner		Document	Publication	Country or		Sub-	Transl	ation
Initial	No.	No.	Date	Patent Office	Class	class	Yes	No
	24	0496494	07/1992	EPO				

## **Other Documents**

Examiner		
Initial	No.	Author, Title, Date, Place (e.g. Journal) of Publication
	25	Anderson, "C customized memory allocators", Winter 1989/1990, Dr. Dobb's C Sourcebook, pp. 62-66, 94.
	26	Aral et al., "Efficient debugging primitives for multiprocessors", 1989, Encor Computer Corporation, ASPLOS III Proceedings, SIGPLAN Notices, Vol. 24, pp. 87-93.
	27	Austin et al., "Efficient detection of all pointer and array access errors" 1993, Computer Sciences Dept., Univ. of Wisconsin-Madison, pp. 1-29.
	28	<b>Bishop</b> , "Profiling under UNIX by patching", 1987, Software Practice and Experience, Vol. 17, No. 10, pp. 729-739.
	29	Boothe, "Fast accurate simulation of large shared memory multi-processors", 1988, US Berkeley EECS Rpt. No. UCB/CDS 92/682.

,		
	30	Borg et al., "Long address traces from RISC machines: Generation and analysis", 1989, Western Research Laboratory.
	31	Calliss et al., "Dynamic data flow analysis of C programs" 1988, Proc. Of 21st Ann.
	"	Hawaii Inter. Conf. On Sys. Sci., Vol. II, IEEE, pp. 514-523.
	32	Caplinger, "A memory allocator with garbage collection for C", 1988, USENIX
	"-	Winter Conf., pp. 325-330.
<u> </u>	33	Chase et al., "Selective interpretation as a technique for de-bugging computationally
		intensive programs' 1987, ACM SIGPLAN NOTICES, Vol. 22(7), pp. 113-124.
	34	Chow et al., "Engineering a RISC compiler system", 1986, MIPS Computer
		Systems, IEEE., pp. 132-137.
	35	Delisle et al., "Viewing a programming environment as a single tool", 1984, ACM
		SIGPLAN Notices, Vol. 19(5), pp. 49-56.
	36	Deutsch et al., "A flexible measurement tool for software systems", 1971, Proc. Of
		IFIP Congress, pp. TA-3-7 to TA-3-12.
	37	Egan, "Achieving supercomputer performance in a low pain environment", 1990,
	"	COMPCON Spring '90, IEEE, pp. 205-207.
	38	Eggers et al., "Techniques for efficient inline tracing on a shared-memory
		multiprocessor", 1989, Univ. of Washington at Seattle, pp. 1-19.
	39	Evans et al., "Debug-an extension to current on-line debugging techniques", 1965,
		Comm. Of ACM, Vol. 8, No. 5. Pp. 321-326.
·-	40	Evans et al., "On-line debugging techniques: A survey", 1966, Proceedings - Fall
		Joint Computer Conference, pp. 37-50.
	41	Fabry, "MADBUG - A mad debugging system", 1965, Compatible Time-Sharing
		System, A Programmer's Guide, 2d Ed., MIT, pp. 1-14.
	42	Ferrari, "Computer systems performance evaluation", 1978, Englewood Cliffs, New
		Jersey, pp. 44-56.
	43	Feuer, "SI-AN Interpreter for the C language", 1985, USE-NIX Conference
		Proceedings, pp. 47-55.
	44	Feustel, "On the advantages of tagged architecture", 1973, IEEE Transactions on
_		Computers, Vol. C-22, No. 7, pp. 644-656.
	45	Fischer, "The implementation of run-time diagnostics in PASCAL" 1980, IEEE
		Transactions on Software Engineering, Vol. SE-6, No. 4, pp. 313-319.
	46	Fischer et al., "Efficient implementation and optimization of run-time checking in
		PASCAL", 1976, Computer Science Dept., Univ. of Wisconsin, pp. 19-24.
	47	Fox, "Dynamic memory management in C", 1988, BYTE, pp. 313-314, 316, 318.
	48	Gill, "The diagnosis of mistakes in programmes on the EDSAC", 1951, Proceedings
		of the Royal Society, Series A Math and Physical Sci., No. 1087, Vol. 206, pp. 538-
	ļ	554.
	49	Graham et al., "Practical data breakpoints: Design and implementation" 1993,
	ļ	Computer Science Div., UC Berkeley, pp. 1-13.
	50	Goldberg et al., "MTOOL: A method for detecting memory bottle-necks", 1990,
-	ļ	Western Research Laboratory.
	51	Goldberg, "Reducing overhead in counter-based execution profiling", Stanford
		Technical Report No. CSL-TR-91-495.
	52	Grossman, "Debugging with the 80386", 1988, Dr. Dobb's Journal, pp. 18, 20, 24,
		26, 28.
	53	Hastings et al., "Purify: Fast detection of memory leaks and access errors", 1992,
	<del> </del>	Proceedings of the Winter USENIX Conference, pp. 125-136.
<u> </u>	54	Heller, "Just add water" 1990, BYTE, pp. 180, 190, 314, 316, 318.
	55	Huang, "Program instrumentation and software testing", 1978, Computer, Vol. 11,
	ļ	pp. 25-32.
	56	Huang, "Detection of data flow anomaly through program instrumentation", 1979,
	<u> </u>	IEEE Transactions on Software Engineering, Vol. SE-5, No. 3, pp. 226-236.
	57	Johnson, "Postloading for fun and profit", 1990, USENIX, pp. 325-330.
	<u> </u>	<u> </u>

58	Johnson, "An annotated software debugging bibliography", 1982, Hewlett-Packard CSL 82-4.
59	Kaufer et al., "Saber C, an interpreter-based programming environment for the C language", 1988, Summer USENEX – San Francisco, CA, pp. 47-55.
 60	Kempton et al., "Run-time detection of undefined variables considered essential", 1990, Software-Practice and Experience, Vol. 20 (4), pp. 391-402.
61	Kendall, "Runtime checking for C programs", 1983, USENIX Software Tools, Toronto Conference Proceedings, pp. 6-16.
62	Kessler, "Fast breakpoint: design and implementation", 1990, Proceeding of the ACM SIGPLAN '90, White Plains, New York, pp. 78-84
63	Larus et al., "Rewriting executable files to measure program behavior", 1992, Computer Sciences Dept., Univ. of Wisconsin-Madison, pp. 1-17.
64	McFarling, "Program organization for instruction caches", 1989, Computer Systems Laboratory, Stanford University.
65	Manmood et al., "Concurrent error detection using watchdog processors – A survey", 1988, IEEE Transactions on Computers, Vol. 37, No. 2, pp. 160-174.
66	May, "MIMIC: A fast system/370 simulator", 1987, ACM SIGPLAN Notices, Vol. 22, No. 7, pp. 1-13.
67	Mellor-Crummey et al., "A software instruction counter", 1989, SIGPLAN Notices, Vol. 24, pp. 78-86.
68	Merilatt, "C dynamic memory use", 1989, Dr. Dobb's Journal, pp. 62, 64, 66-67, 125.
 69	Nichols, "The bug stops here", 1989, Electronic Design, pp. 84-90.
70	Osterweil et al., "DAVE-A validation error detection and documentation system for FORTRAN programs", 1976, Software-Practice and Experience, Vol. 6, No. 4, pp.
	473-486.
71	<b>Pearson</b> , "Array bounds checking with turbo C", 1991, Dr. Dobb's Journal, pp. 72-74, 78-82, 104.
72	Ross, "Integral C-A practical environment for C programming" 1986, ACM SIGPLAN Notices, Vol. 22(1), pp. 42-48.
 73	Sato et al., "Run-time checking in LISP by integrating memory addressing and range checking", 1989, ACM Pub. No. 0884-7495/89/0000/0290, pp. 290-297.
 74	Smith, "Tracing with pixie", UNIX man pages, pp. 1-2.
75	Snodgrass, "Monitoring in a software development environment: A relational approach", 1984, Assoc. for Computing Mach.
 76	Steffen, "Adding run-time checking to the portable C compiler", 1992, Software-Practice and Experience, Vol. 22(4), pp. 305-316.
77	Stephens et al., "Instructions level profiling and evaluation of the IMB RS/6000", 1991, Assoc. for Computing Mach., ACM 0-89791-394-9/91/0005/0180, pp. 180-189.
78	Stucki, "A prototype automatic program testing tool" 1972, AFIPS Fall Joint Computer Conference, pp. 829-836.
79	Stucki et al., "New assertion concepts for self-metric software validation", 1975, SIGPLAN Notices 10(6), pp. 59-65.
80	Thompson, "Error checking, tracing, and dumping in an ALGOL 68 checkout compiler" 1977, SIGPLAN Notices, pp. 106-111.
 81	Wahbe et al., "Low latency RPC via software—enforced protection domains", 1993, Computer Science Div., UC Berkeleky.
82	Wahbe, "Efficient data breakpoints", 1992, UC Berkeley, pp. 200-209.
 83	Wall, "Global register allocation at link time", 1986, Western Research Laboratory.
 84	Wall, "Link-time code modification", 1989, Western Research Laboratory.
 85	Wall et al., "The Mahler experience: Using an intermediate language as the machine description", 1987, Western Research Laboratory.
86	Wall, "Register windows Vs. register allocation", 1987, Western Research Laboratory.

	87	Wall, "Systems for late code modification", 1992, DEC Western Research
		Laboratory, (C00093).
	88	Wall, "Post compiler code transformation", 1992, DEC Western Research
		Laboratory, (C00011).
	89	Ward, "Wired C Bugs" 1988, Computer Language, pp. 63-66.
	90	Watson, Gray; Debug Malloc Library, 1997, Debug-Malloc Home Page at
		http://www.letters.com/dmalloc/.
	91	Welsh, "Ecomonic range checks in PASCAL", 1978, Software-Practice and
		Experience, Vol. 8, pp. 85-97.
	92	Wilson et al., "OMEGA – A data flow analysis tool for the C programming
ļ		language", 1985, IEEE Transactions on Software Engineering, Vol. SE-11, No. 9, pp.
		832-838.
	93	Winner, "Unassigned objects", 1984, ACM Transaction on Programming Languages
		and Systems, Vol. 6, No. 4, pp. 449-467.
	94	Zelkowitz et al., "Error checking with pointer variables", 1976, Proceedings of the
		ACM 1976 National Conference, pp. 391-395.
	95	"The safe C runtime analyzer", pre-1991, Product description and manual pages,
		Blossom/Catalyix, Cambridge, Massachusetts.
	96	"Using SABER-C", Saber Software, Inc., Cambridge, Massachusetts 02138.
	97	"SABER-C Reference", Saber Software, Inc., Cambridge Massachusetts 02138.
	98	"RISCCompiler and C programmer's guide", 1989, MIPS Computer Systems, Inc.
<del></del>		

Examiner	Date Considered

Examiner: Initial citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.